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SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/225,027 04/08/94 ROZMAN

21M1/0831

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A E

RILEY, S. EXAMINER

ART UNIT PAPER NUMBER

2111

DATE MAILED: 08/31/95

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☐ Responsive to communication filed on \_\_\_\_\_ ☐ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), 0 days from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

**Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:**

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input checked="" type="checkbox"/> Notice of Draftsman's Patent Drawing Review, PTO-948. |
| 3. <input checked="" type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449.      | 4. <input type="checkbox"/> Notice of Informal Patent Application, PTO-152.                  |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474.     | 6. <input type="checkbox"/> _____  |

**Part II SUMMARY OF ACTION**

1. ☒ Claims 1-10 are pending in the application.  
Of the above, claims \_\_\_\_\_ are withdrawn from consideration.
2. ☐ Claims \_\_\_\_\_ have been cancelled.
3. ☐ Claims \_\_\_\_\_ are allowed.
4. ☒ Claims 1-10 are rejected.
5. ☐ Claims \_\_\_\_\_ are objected to.
6. ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.
7. ☒ This application has been filed with Informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on \_\_\_\_\_. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).
10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_, has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed \_\_\_\_\_, has been ☐ approved; ☐ disapproved (see explanation).
12. ☐ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

EXAMINER'S ACTION

**P A R T   I I I                      D E T A I L E D   A C T I O N**

1. If applicant desires priority under 35 U.S.C. § 120 based upon a parent application, specific reference to the parent application must be made in the instant application. This should appear as the first sentence of the specification following the title, preferably as a separate paragraph. Status of the parent application (whether patented or abandoned) should also be included. If a parent application has become a patent, the expression "Patent No." should follow the filing date of the parent application. If a parent application has become abandoned, the expression "abandoned" should follow the filing date of the parent application.

***Drawings***

2. The drawings are objected to because figure 9 has no elements labeled. Correction is required.

***Specification***

3. The disclosure is objected to because of the following informalities: There is no discussion of figure 9, either in the Brief Description of the Drawings or elsewhere. Appropriate correction is required.

4. The specification is replete with grammatical errors too numerous to mention specifically. The specification should be revised carefully. Examples of such errors are: page 3 line 4 "across" and page 2 lines 28 - 36 (punctuation).

***Double Patenting***

The non-statutory double patenting rejection, whether of the obvious-type or non-obvious-type, is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent. *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Van Ornam*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); and *In re Goodman*, 29 USPQ2d 2010 (Fed. Cir. 1993).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321 (b) and (c) may be used to overcome an actual or provisional rejection based on a non-statutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.78 (d).

Effective January 1, 1994, a registered attorney or agent of record may sign a Terminal Disclaimer. A Terminal Disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 of U.S. Patent No. 5,303,138. Although the conflicting claims are not identical, they are not patentably distinct from each other because <sup>both</sup> discuss a power converter using two synchronous rectification devices. Figure 7 shows a flyback mode operation of a "a bipolar and synchronous rectifier device" which renders the claimed invention as an obvious variation of the previously described invention utilizing the use of a diode in place of the prior art figure 1's 105 MOSFET and an obvious modification in place of a fly-back converter.

**Claim Rejections - 35 USC § 112**

5. Claims 1-10 rejected under 35 U.S.C. § 112, first paragraph, for the reasons set forth in the objection to the specification.

**N.B.** If applicant amends the disclosure (which includes the specification, claims or drawings) with wording not explicitly proposed by the USPTO, the applicant shall state in detail (including line(s) number(s) and page(s) and element(s) of the appropriate drawing figure(s)) where each amendment(s) finds support in the originally filed application.

**Claim Rejections - 35 USC § 103**

6. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

7. Claims 1-5 are rejected under 35 U.S.C. § 103 as being unpatentable over Basset (U.S. Patent 5,066,900) in view of the Principles of Solid-State Power Conversion, Tarter, 1st ed., 1985, p544-547. Basset (in prior art figure 2) discloses the general background of the invention. However, Basset does not explicitly

90 teach the use of a MOSFET for a rectifier (diode D2). Principles  
of Solid-State Power Conversion, Tarter, 1st ed., 1985, p544-547.  
discusses the use of a MOSFET for a rectifier. It would have been  
obvious at the time the invention was made to utilize a MOSFET for  
a rectifier in the circuit of Bassett for the well-known reason of  
95 reducing the voltage drop across a rectifier device to conserve  
energy. See Principles of Solid-State Power Conversion pgs 544-  
547.

8.Claims 5-10 are rejected under 35 U.S.C. § 103 as being  
unpatentable over Basset (U.S. Patent 5,066,900) in view of the  
100 Principles of Solid-State Power Conversion, Tarter, 1st ed., 1985,  
p544-547 and further in view of Jitaru (U.S. Patent 5,126,931.  
Basset and Principles of Solid-State Power Conversion discloses the  
general background of the invention as discussed above. However,  
neither reference discusses the use of a clamping circuit to limit  
105 the voltage of the transformer during periodic recycling. Jitaru  
shows (in figure 1, element 32) the use of a clamping circuit in a  
single ended foward mode converter to limit the voltage of the  
transformer during periodic recycling. It would have been obvious  
at the time the invention was made to utilize a clamping circuit to  
limit the voltage of the transformer during periodic recycling into  
110 the combinations of Bassett and Principles of Solid-State Power  
Conversion for the well-known reason of establishing a  
predetermined time interval between the turn off and turn on of the  
primary power switching transistor of a single ended configuration  
115 (30) to permit proper switching of the primary power switching  
transistor by minimizing stress and power loss to and by the

primary power switching transistor. See Jitaru at column 8 line 31  
et seq.

**Conclusion**

9. The prior art made of record and not relied upon is  
considered pertinent to applicant's disclosure.

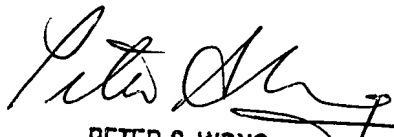
10. Any inquiry concerning this communication or earlier  
communications from the examiner should be directed to Examiner  
Riley whose telephone number is (703) 305-3487 or 308-7619. The  
examiner may normally be reached Monday through Friday, 8:30 -  
5:30, est.

If attempts to reach the examiner by telephone are  
unsuccessful, the examiner's supervisor, Peter Wong, can be  
reached at (703) 305-3477.

Any inquiry of a general nature or relating to the status of  
this application should be directed to the Group receptionist  
whose telephone number is (703) 308-1782.

Any necessary fax can be sent to (703) 305-7723 or (703)  
305-3431/2.

sr  
Tuesday, 22 August 1995

  
PETER S. WONG  
SUPERVISORY PATENT EXAMINER  
GROUP 2100